APPENDIX C

STANDARD ERRORS OF ESTIMATES

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This report presents estimates of the total number of student-days spent on work projects, the average value of output created per student-day spent on work projects, and the total value of the output created by students during work projects. These estimates are called "point" estimates. This appendix presents standard errors for these point estimates. As its name implies, a standard error is an estimate of the error in a point estimate and is a measure of our uncertainty about the estimate. Standard errors can be used to estimate "confidence intervals" that give a range of possible values. A "95-percent" confidence interval extends from two standard errors below the point estimate to two standard errors above the point estimate. Thus, when we estimate that the number of student-days spent on work projects is 1,052,100 and the standard error for this estimate is 105,910 (see Table C.1), the 95 percent confidence interval runs from 1,052,100 - 2 x 105,910 to 1,052,100 + 2 x 105,910, or from 840,280 to 1,263,920. We are 95-percent confident that the true number of student-days spent on work projects lies between 840,280 and 1,263,920.

The standard errors reflect uncertainty due to the sampling of centers, reference months, and projects. If we had studied all projects that were worked on in all Job Corps centers in one year, the standard error of the estimates would be zero. The standard errors do not reflect the uncertainty surrounding outside contractor's estimates of the supply price, center staff's estimates of student-days worked on the project and materials costs used on the project, or estimates of the relative productivity of students made by their supervisors at work experience sites.

The standard errors presented in this appendix were calculated using SUDAAN, a computer software package that calculates standard errors based on the user's description of the sample design.

Table C.1 presents estimates of the standard errors of the total number of student-days spent on work projects, Table C.2 presents estimates of the standard errors of the average value of output produced per student-day spent on non-center-serving projects, and Table C.3 presents estimates of the total value of output produced annually by Job Corps students while working on non-center-serving projects.

TABLE C.1

ESTIMATES OF THE NUMBER OF STUDENT-DAYS SPENT
ON WORK PROJECTS IN ONE YEAR
(Weighted)

	All Work Projects		Work Projects That Are Not Center-Serving	
Type of Project	Total Number of Days	Number of Days Per Student-Year	Total Number of Days	Number of Days Per Student-Year
WE	221,343	6	189,054	6
	(57,199)[a]	(2)	(53,716)	(2)
VST	830,757	24	547,280	16
	(107,141)	(3)	(65,094)	(2)
All	1,052,100	31	736,334	21
	(105,910)	(3)	(64,505)	(2)

[a]Standard errors are in parentheses.

TABLE C.2

ESTIMATES OF THE AVERAGE VALUE OF OUTPUT PRODUCED
PER STUDENT-DAY SPENT ON NON-CENTER-SERVING PROJECTS
(Weighted)

Type of Project	Average Value Per Student-Day	Average Value Per Student-Hour
WE	$42.06 ($3.12)[a]	$7.01 ($0.52)
VST	$32.94 ($5.16)	$5.49 ($0.86)
All	$39.00 ($2.64)	$6.50 ($0.44)

[a]Standard errors are in parentheses.

TABLE C.3

ESTIMATES OF THE VALUE OF OUTPUT PRODUCED ANNUALLY BY JOB CORPS STUDENTS WHILE WORKING ON NON-CENTER-SERVING PROJECTS
(Weighted)

Type of Project	Total Value of Output	Value Per Student-Year
WE	$9.2 million ($1.4 million)[a]	$266.85 ($40.33)
VST	$17.9 million ($3.0 million)	$521.95 ($88.17)
All	$27.1 million ($4.0 million)	$788.79 ($117.32)

[a]Standard errors are in parentheses.

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